

FIG. 1

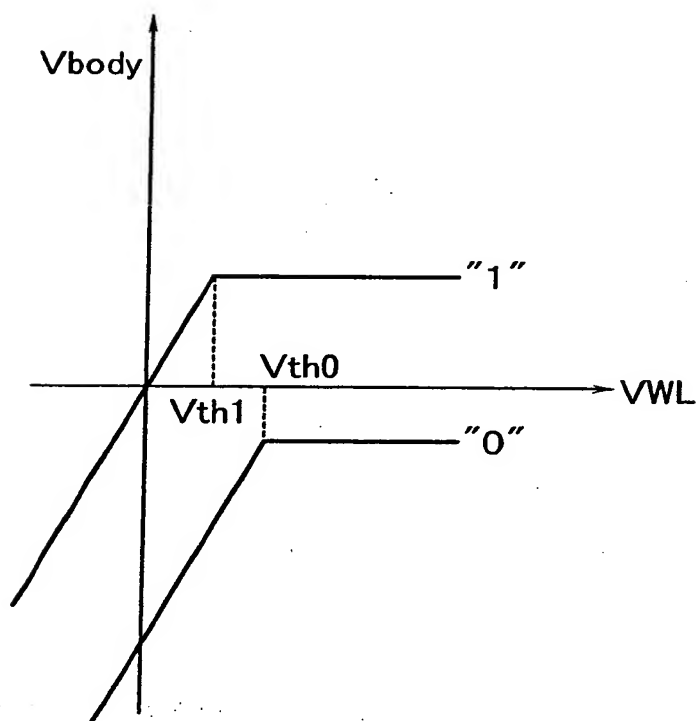


FIG. 2

PD-TYPE CELL

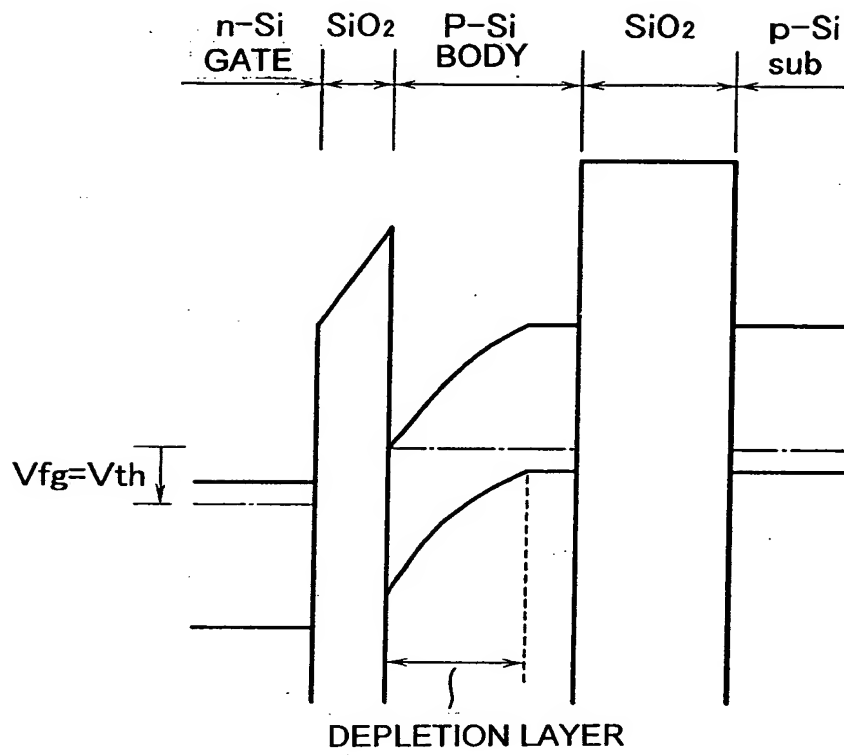


FIG. 3

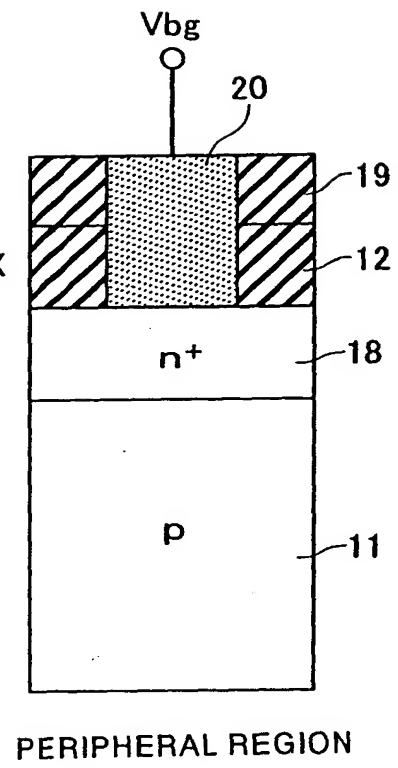
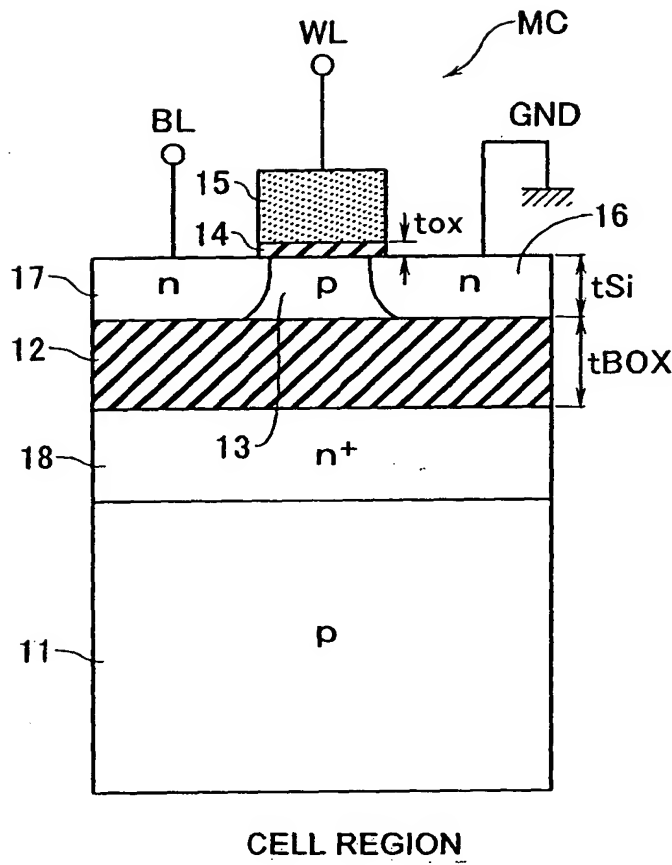


FIG. 4A

FIG. 4B

FD-TYPE CELL

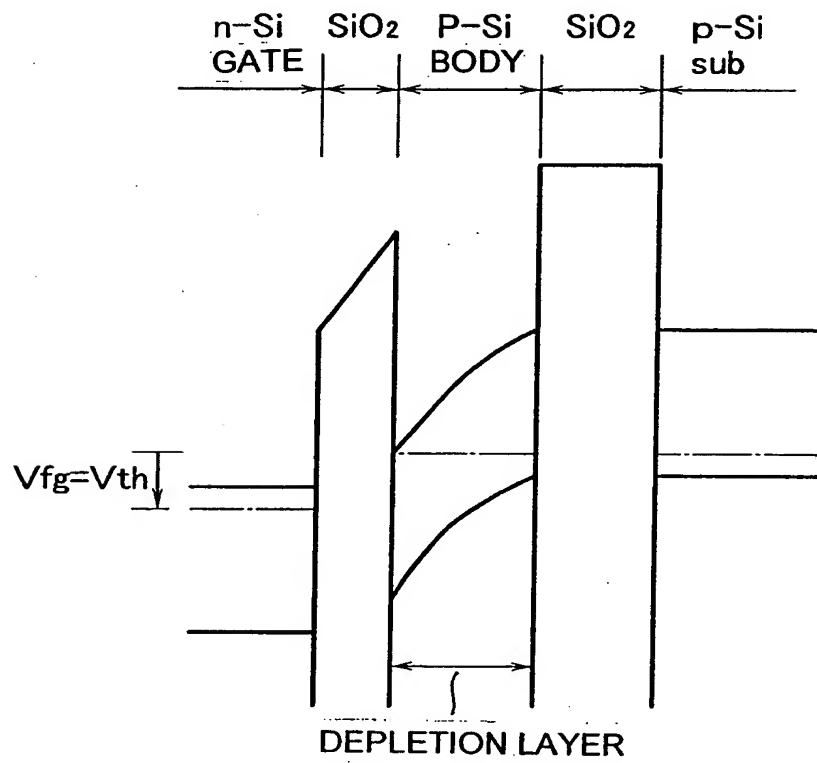


FIG. 5

5 / 25

"0" STATE OF FD-TYPE CELL

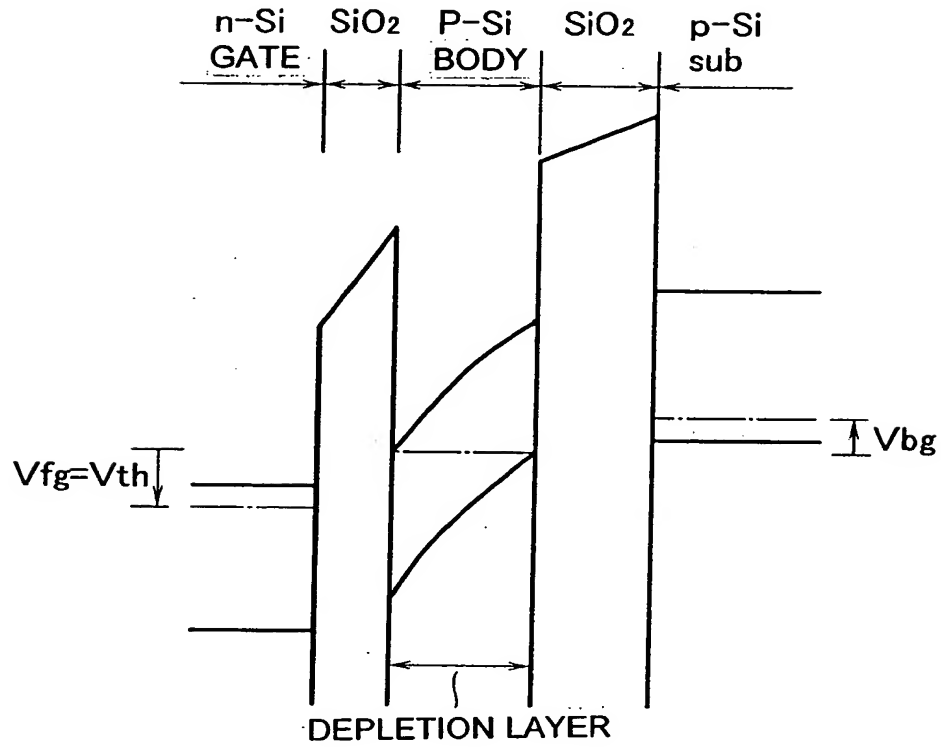


FIG. 6

$t_{ox}=10\text{nm}$, $t_{BOX}=30\text{nm}$, $t_{Si}=25\text{nm}$, $NA=1.0e15\text{cm}^{-3}$

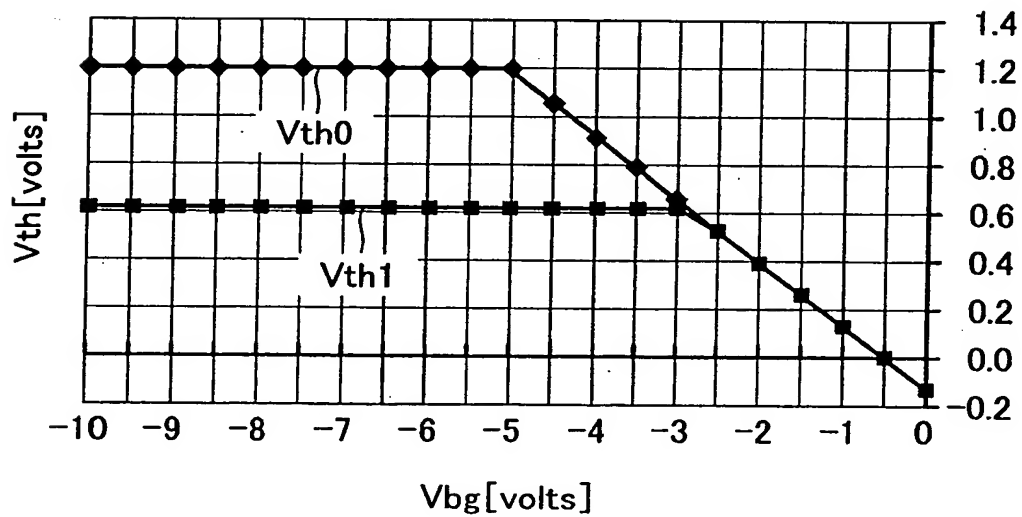


FIG. 7

6 / 25

"0" write/read

($t_{ox}=10\text{nm}$, $t_{BOX}=30\text{nm}$, $t_{Si}=25\text{nm}$,
 $V_{bg}=-5\text{V}$, $N_A=1.0\text{e}15\text{cm}^{-3}$)

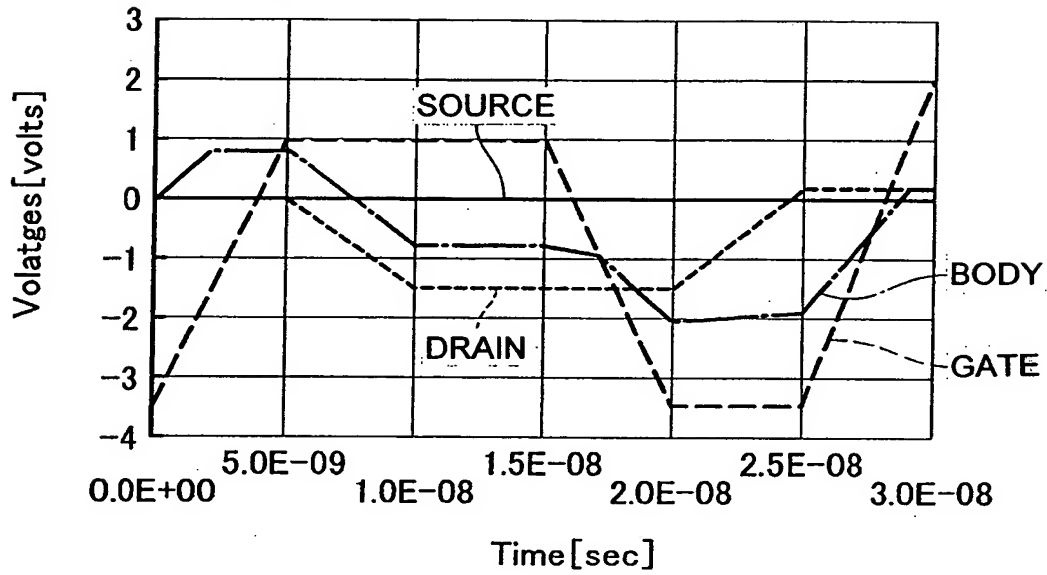


FIG. 8

"1" write/read

($t_{ox}=10\text{nm}$, $t_{BOX}=30\text{nm}$, $t_{Si}=25\text{nm}$,
 $V_{bg}=-5\text{V}$, $N_A=1.0\text{e}15\text{cm}^{-3}$)

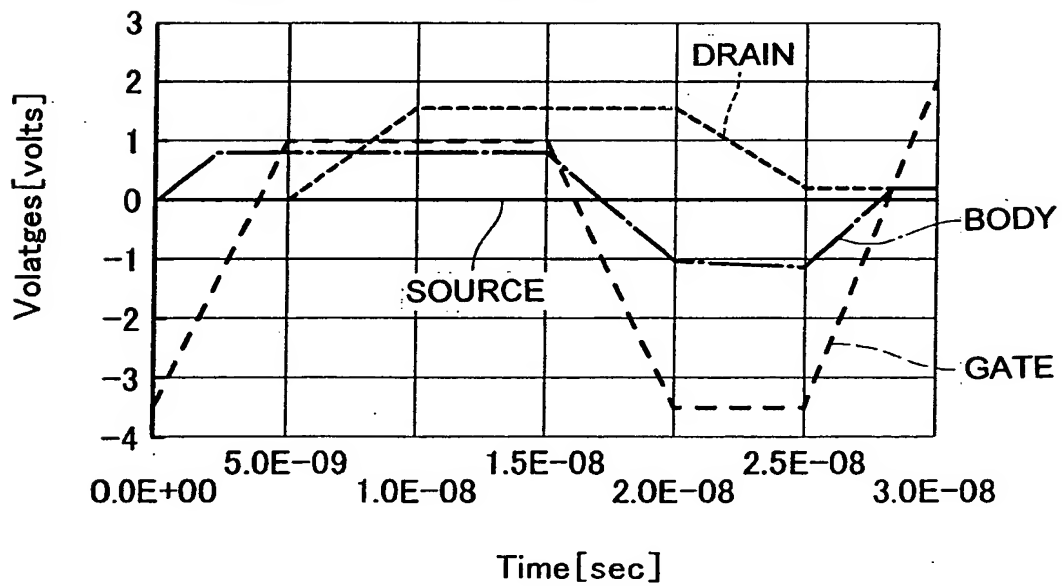


FIG. 9

7 / 25

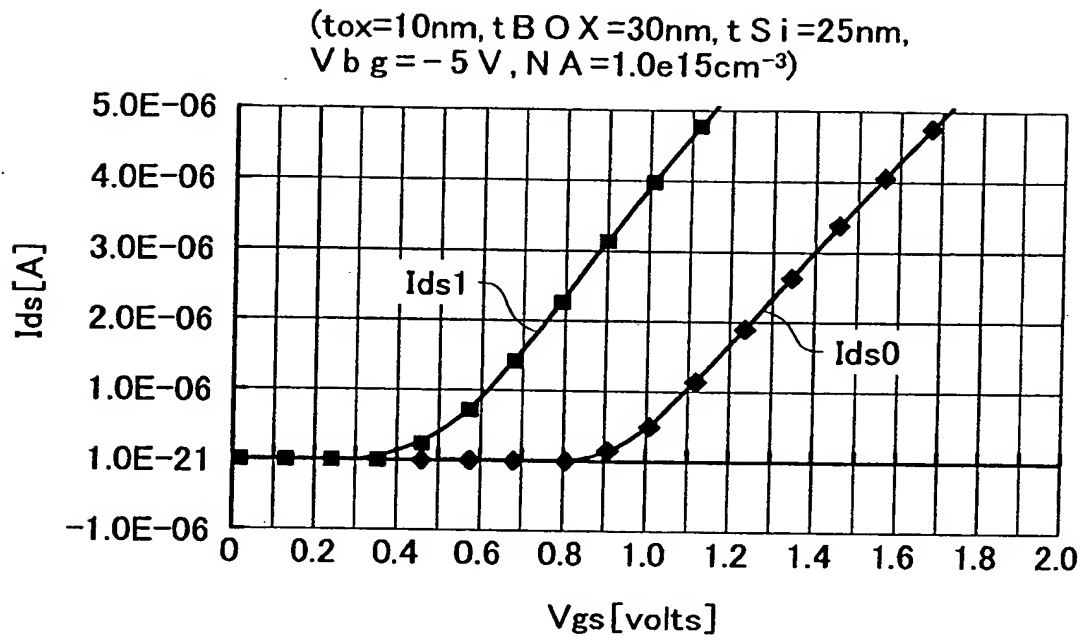


FIG. 10

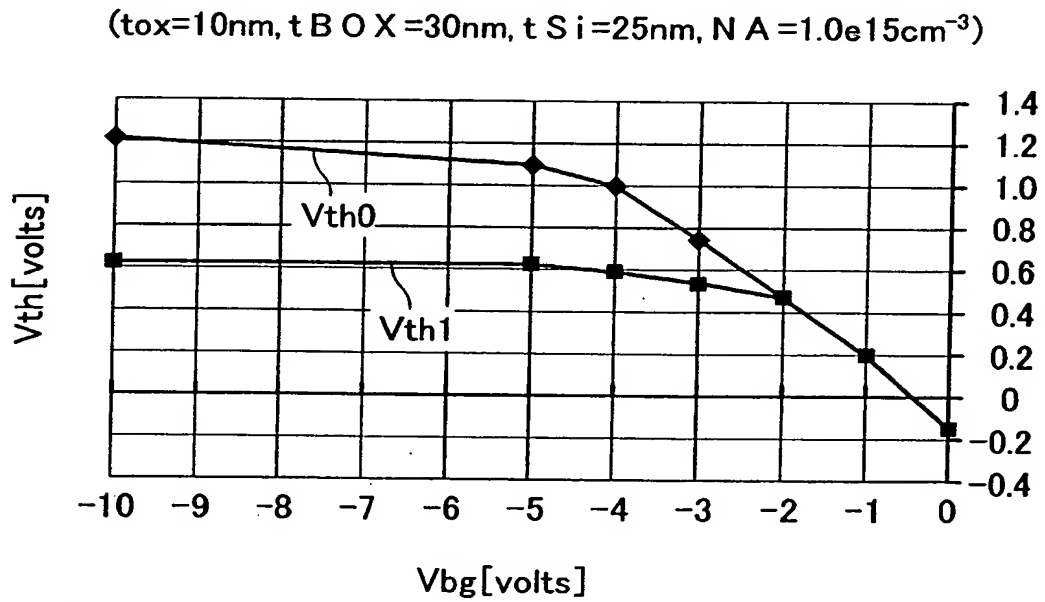


FIG. 11

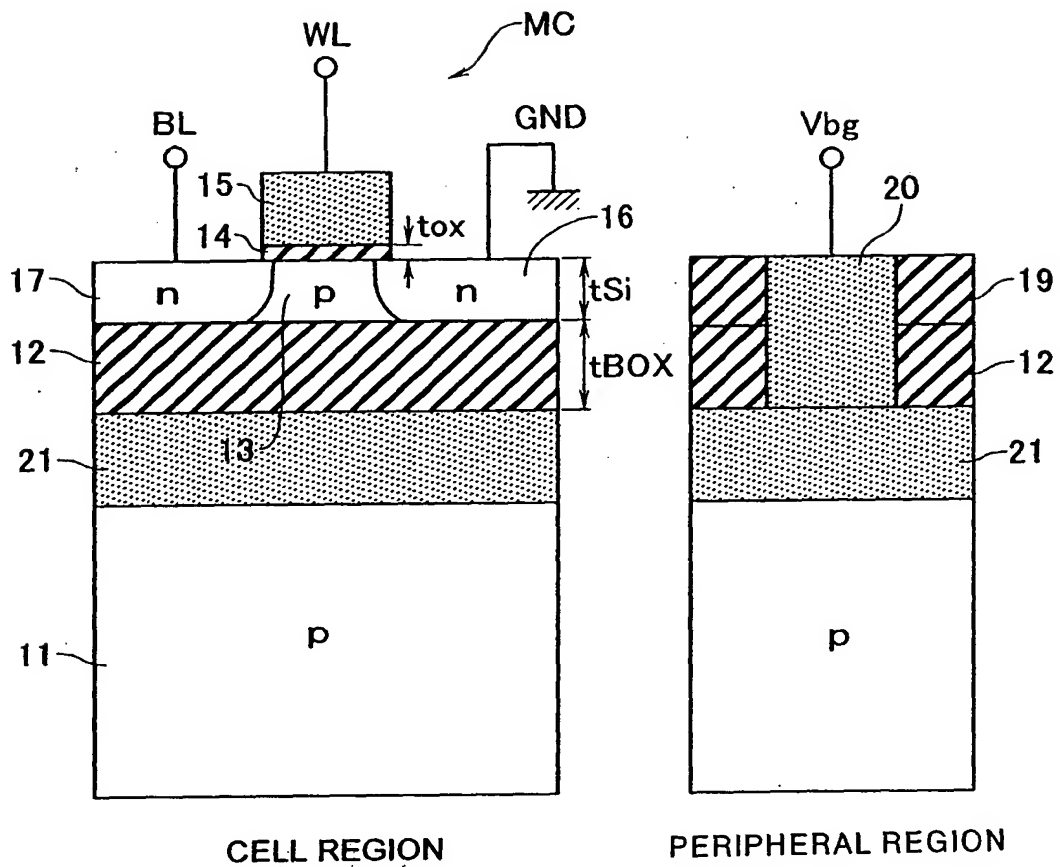
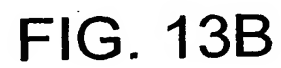


FIG. 12A

FIG. 12B



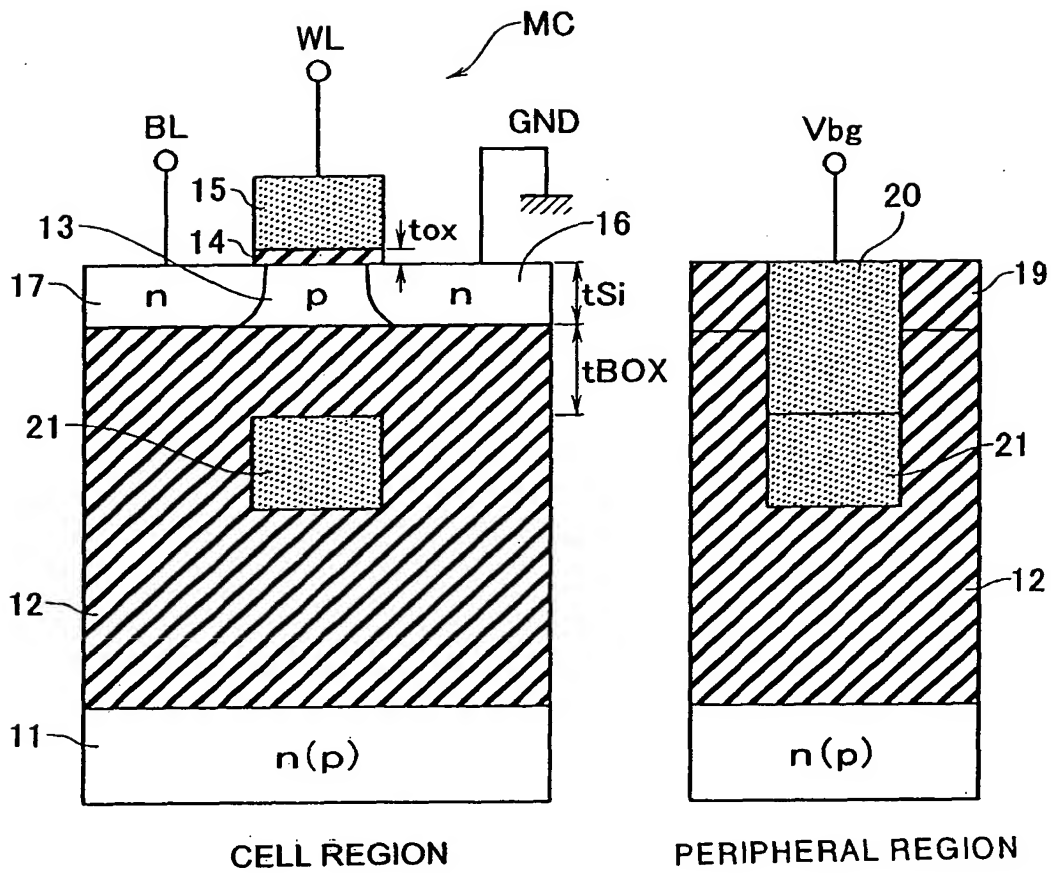


FIG. 14A

FIG. 14B

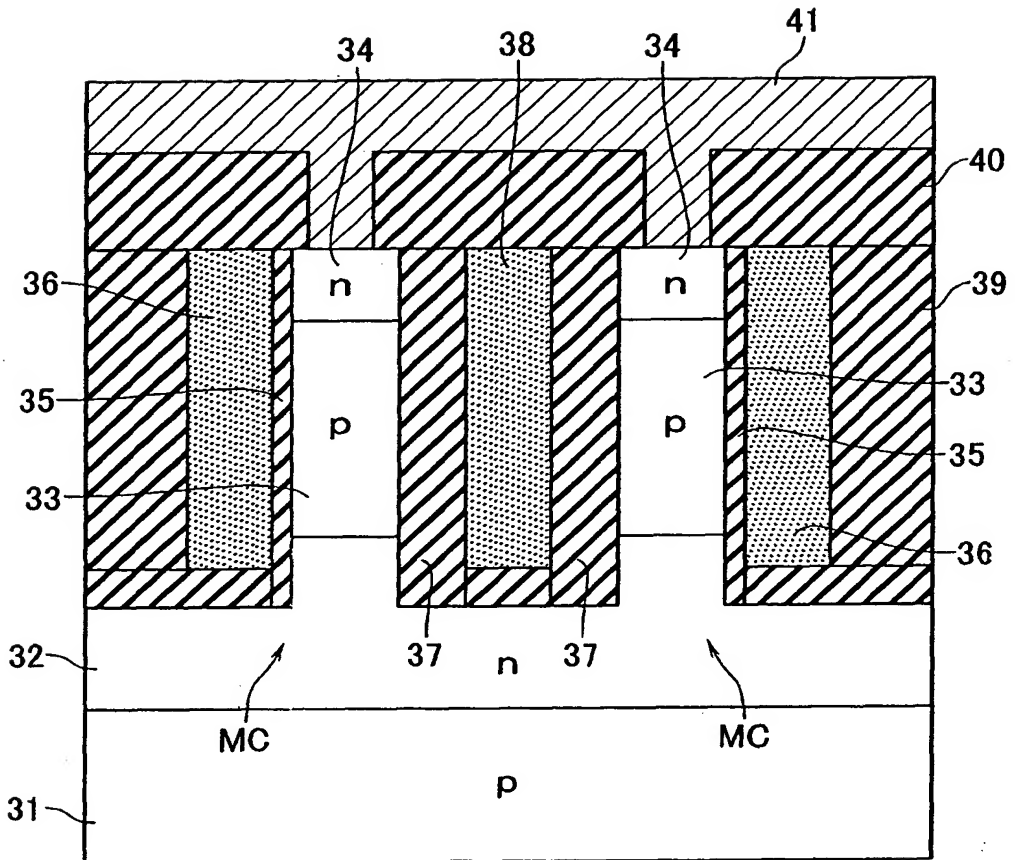


FIG. 15

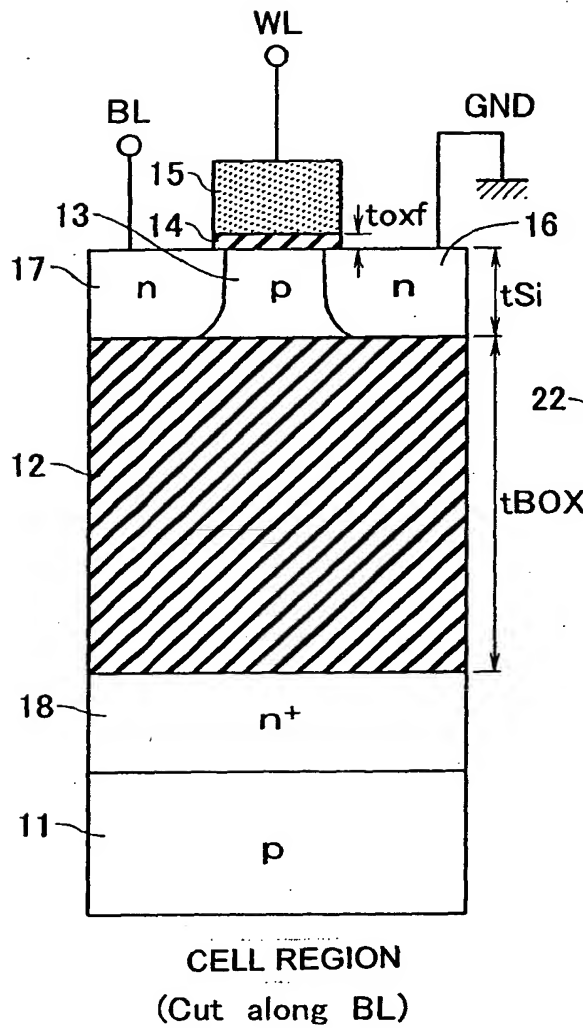


FIG. 16A

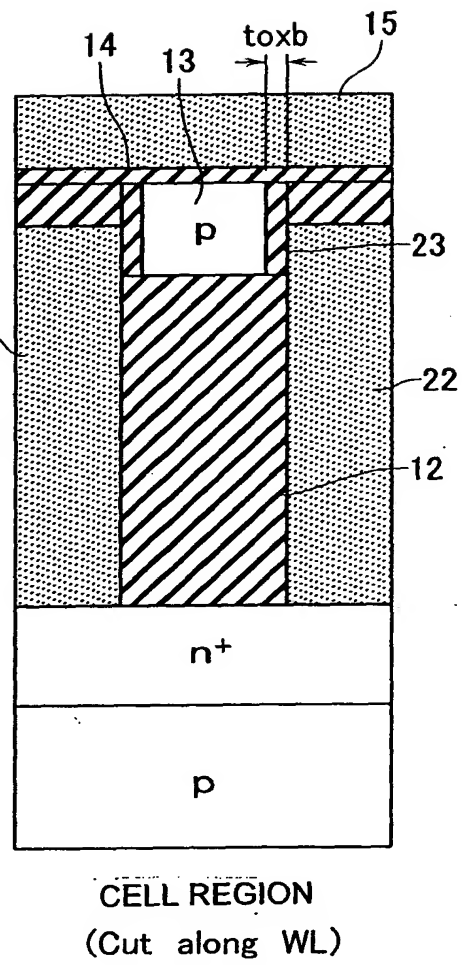


FIG. 16B

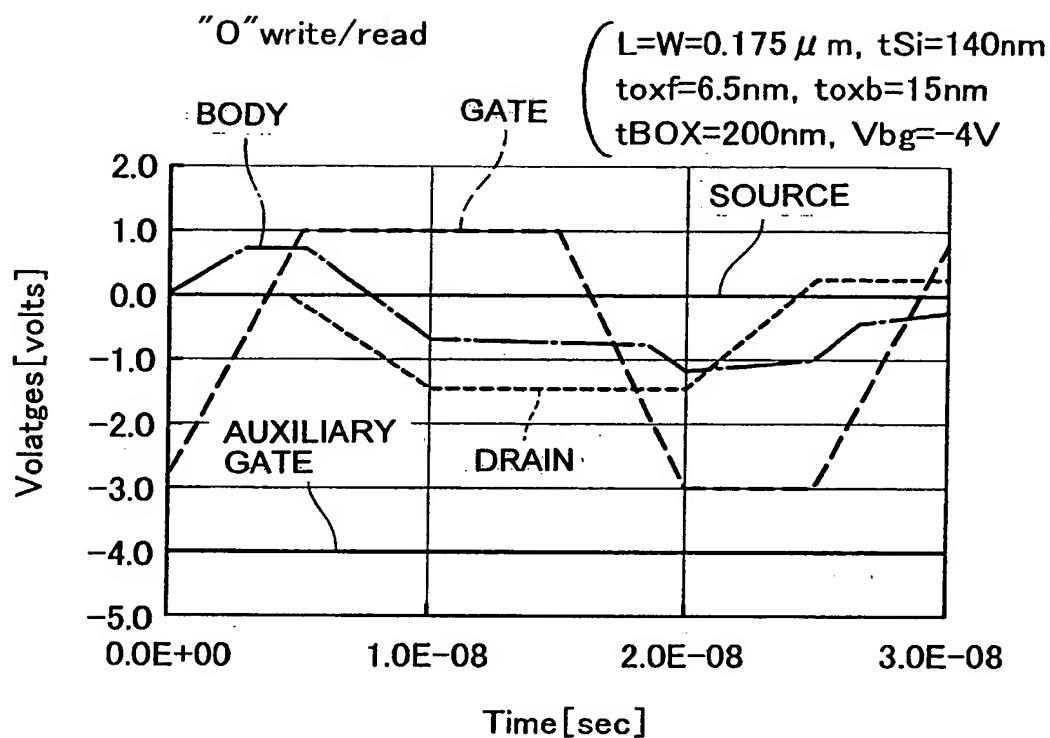


FIG. 17

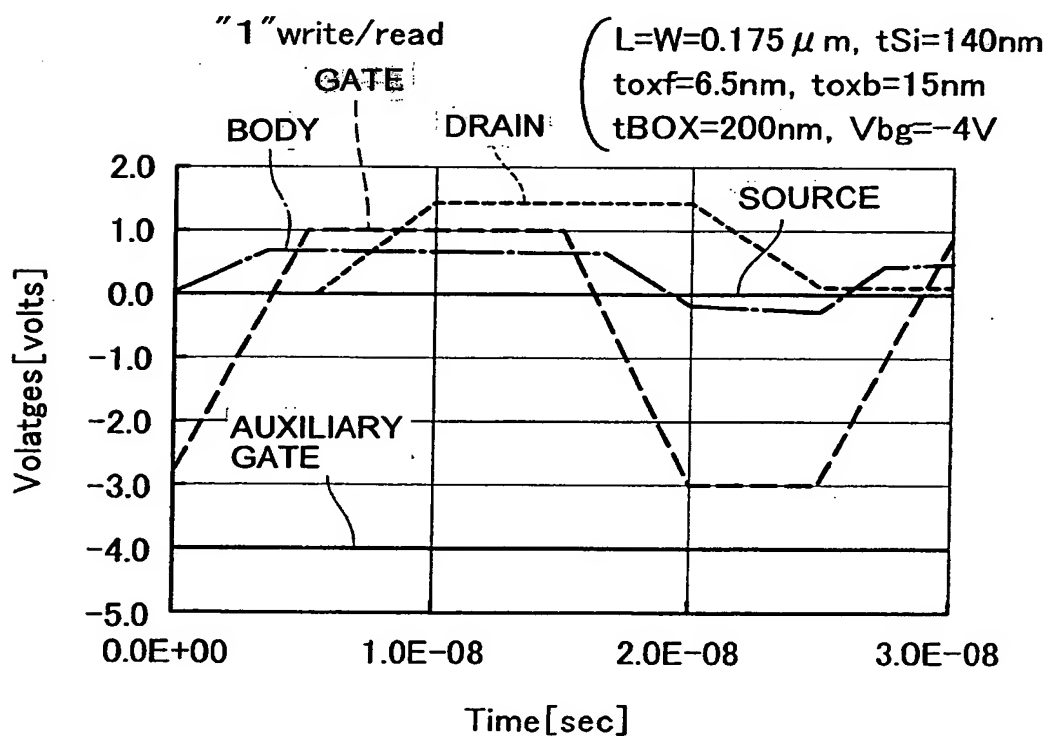


FIG. 18

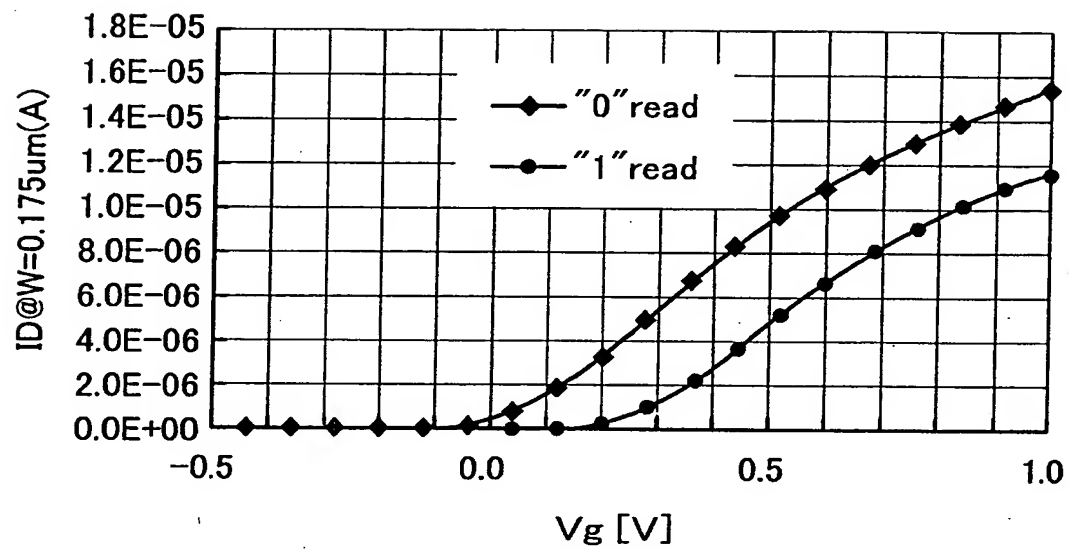


FIG. 19

$t_{ox}=10\text{nm}$, $t_{BOX}=30\text{nm}$, $t_{Si}=25\text{nm}$,
 $NA=n_i=1.0e10\text{cm}^{-3}$ @300K, p+poly gate

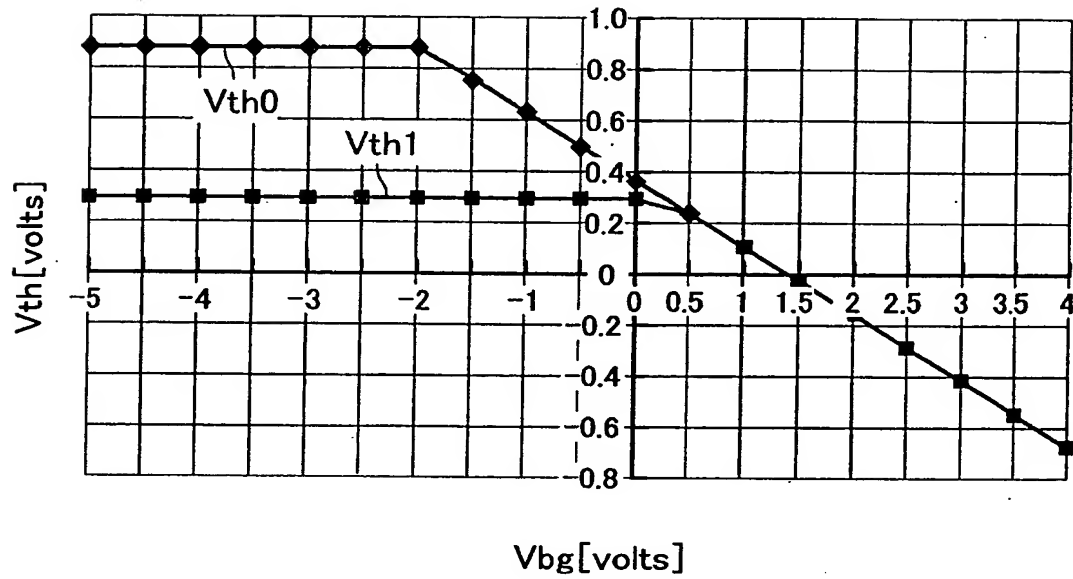


FIG. 20A

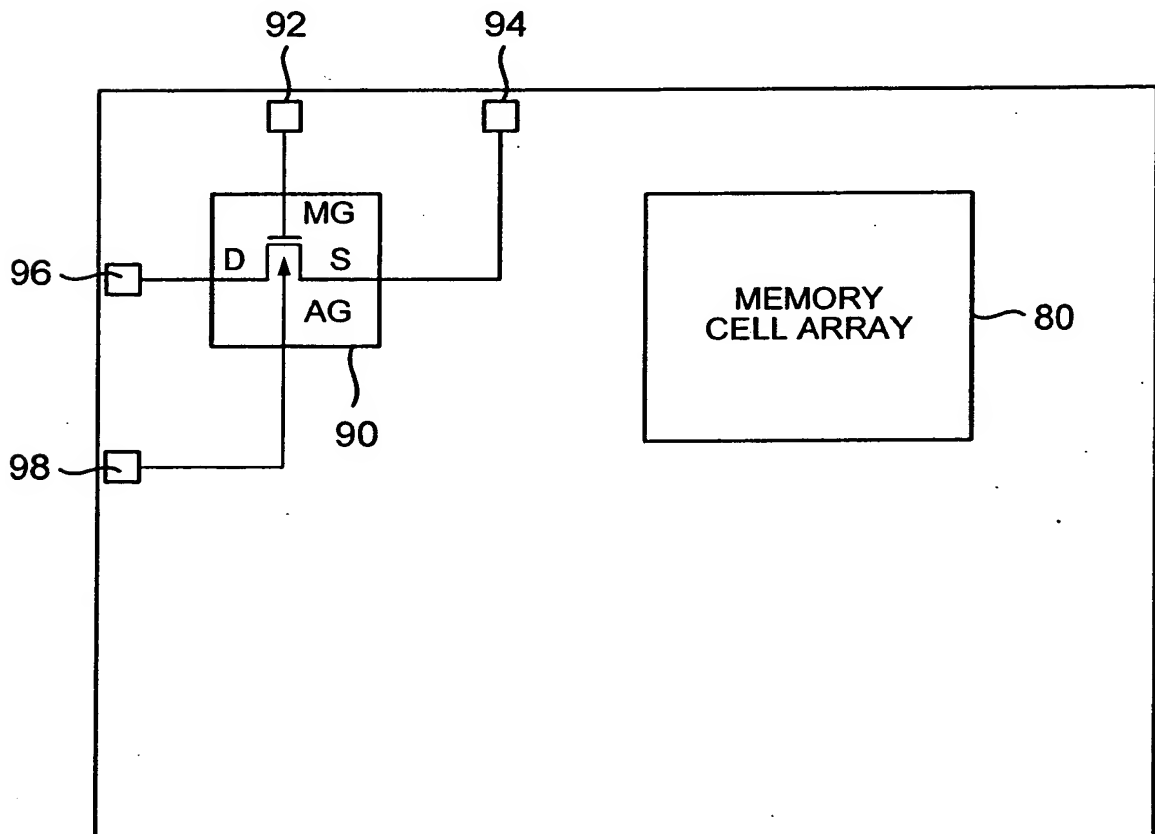


FIG. 20B



FIG. 21

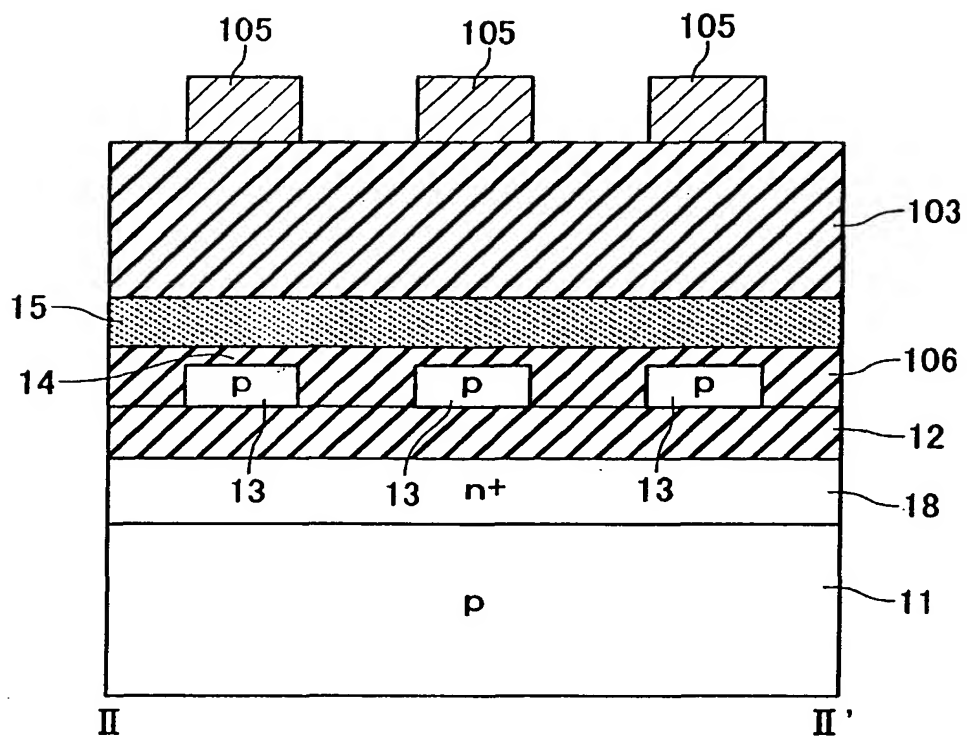


FIG. 23

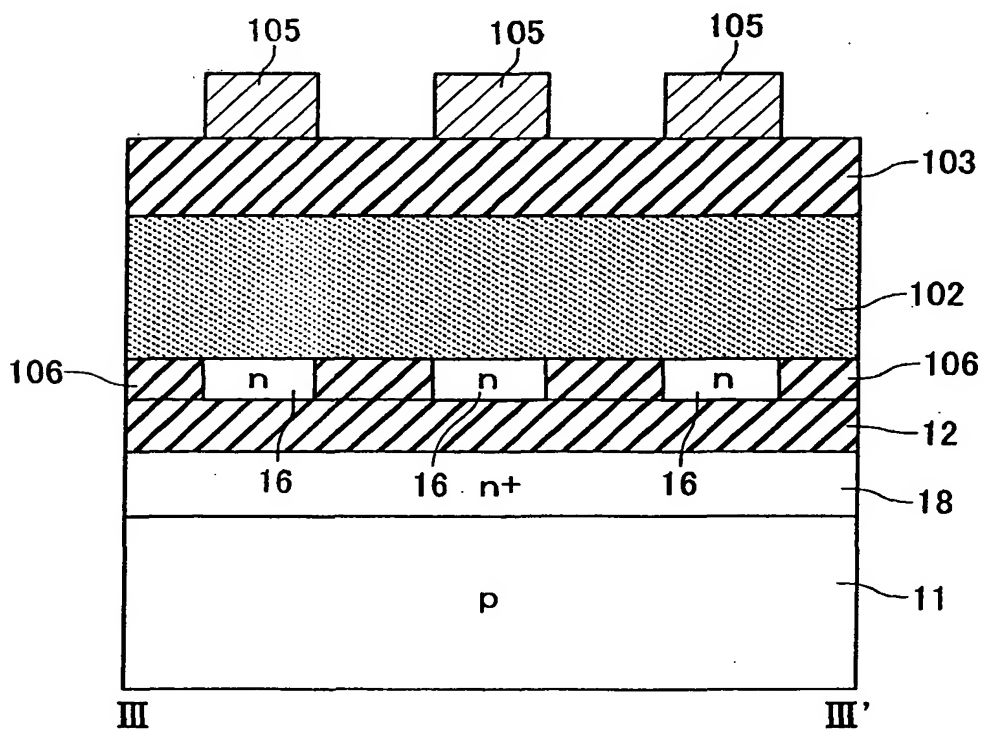


FIG. 24



FIG. 25

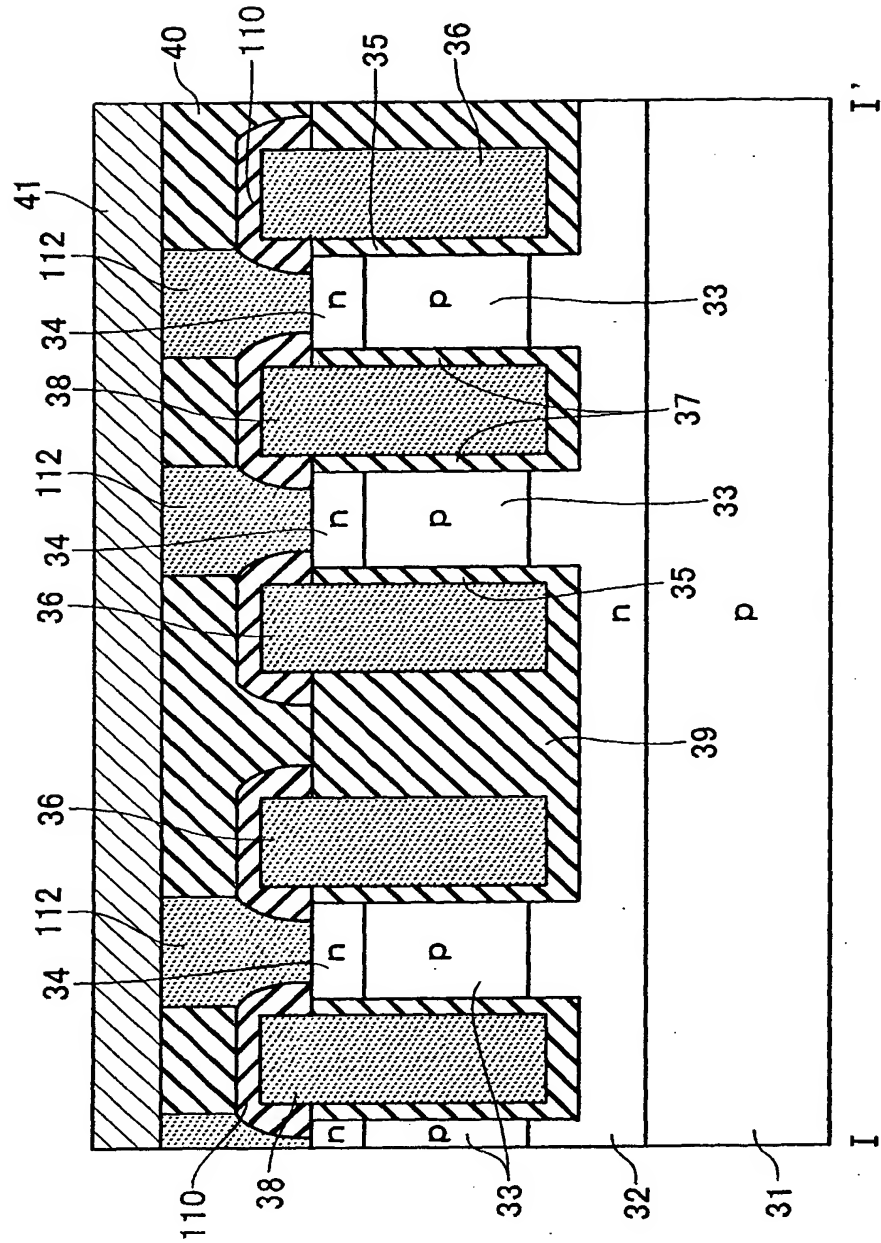


FIG. 26

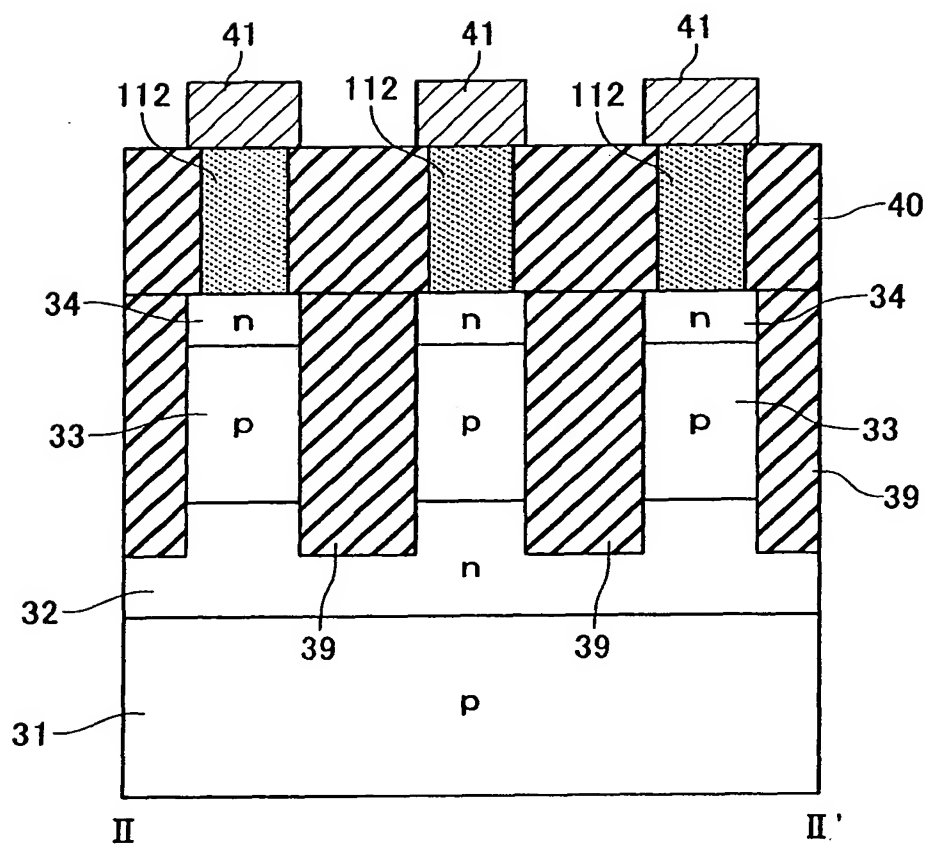


FIG. 27

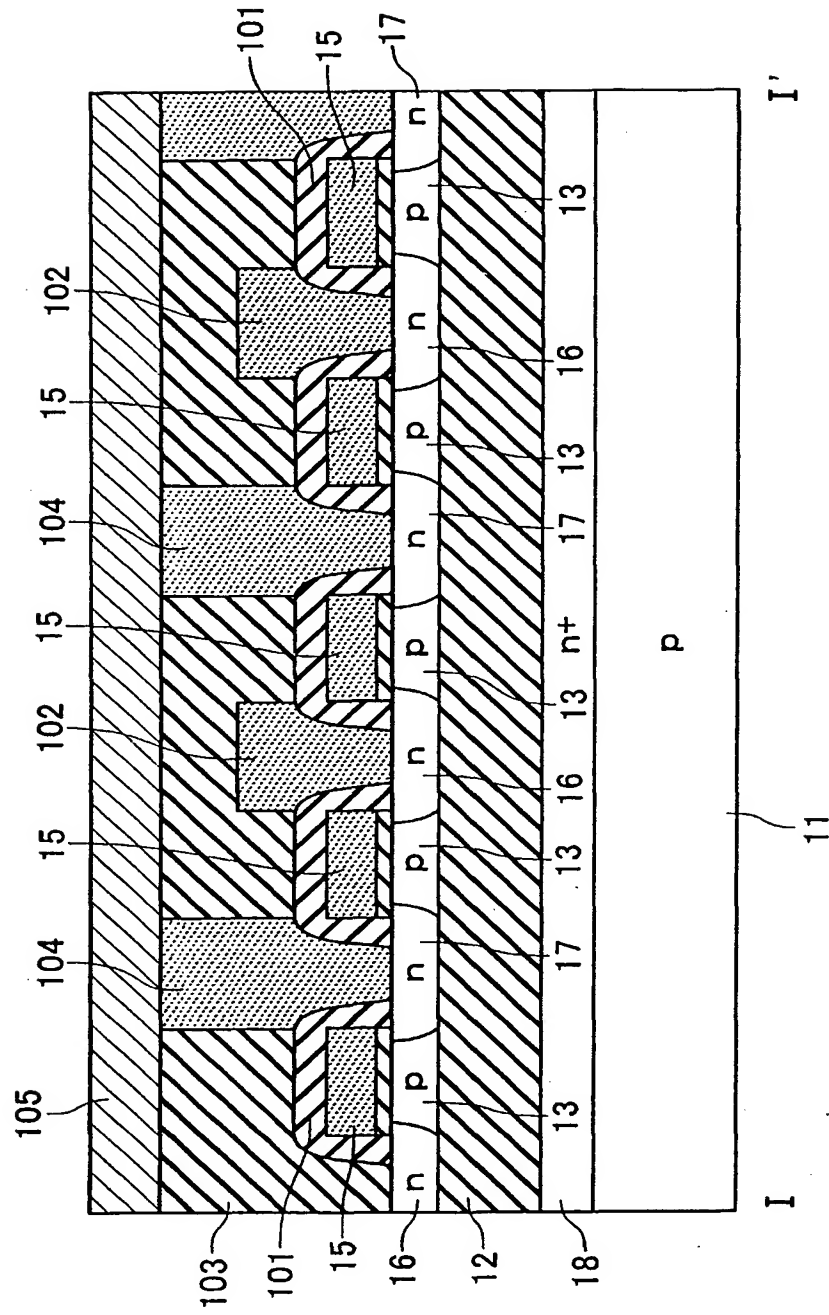


FIG. 29

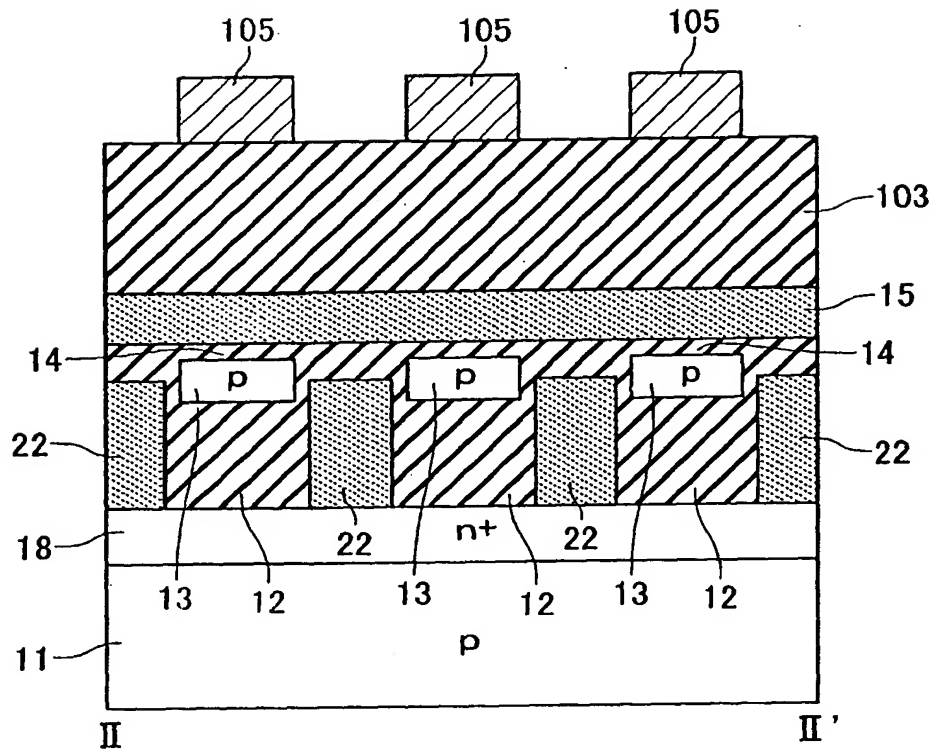


FIG. 30

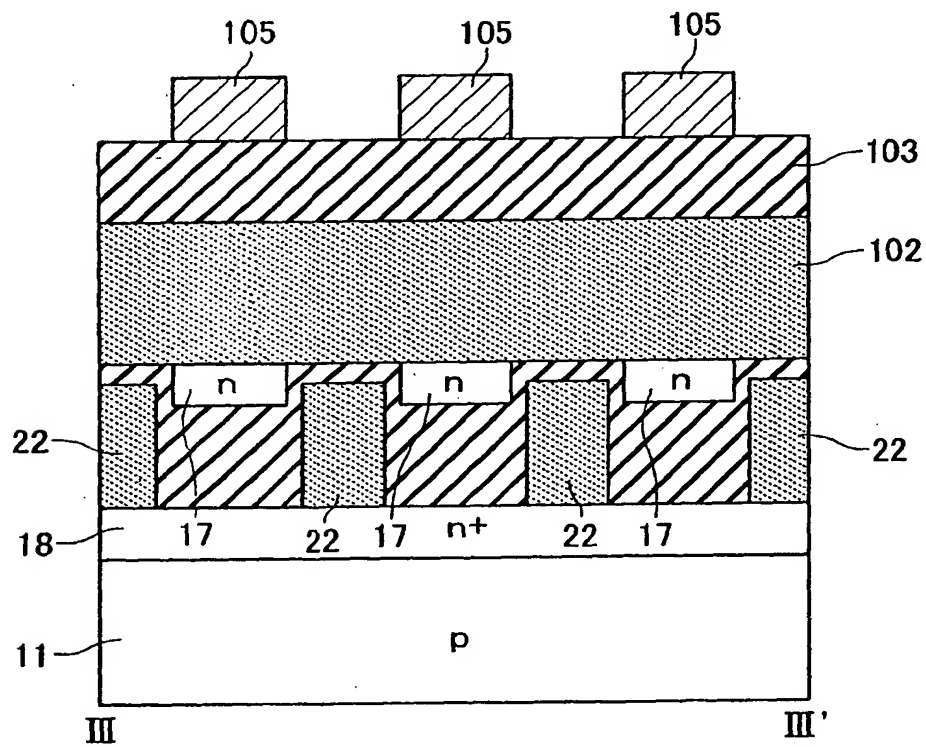


FIG. 31

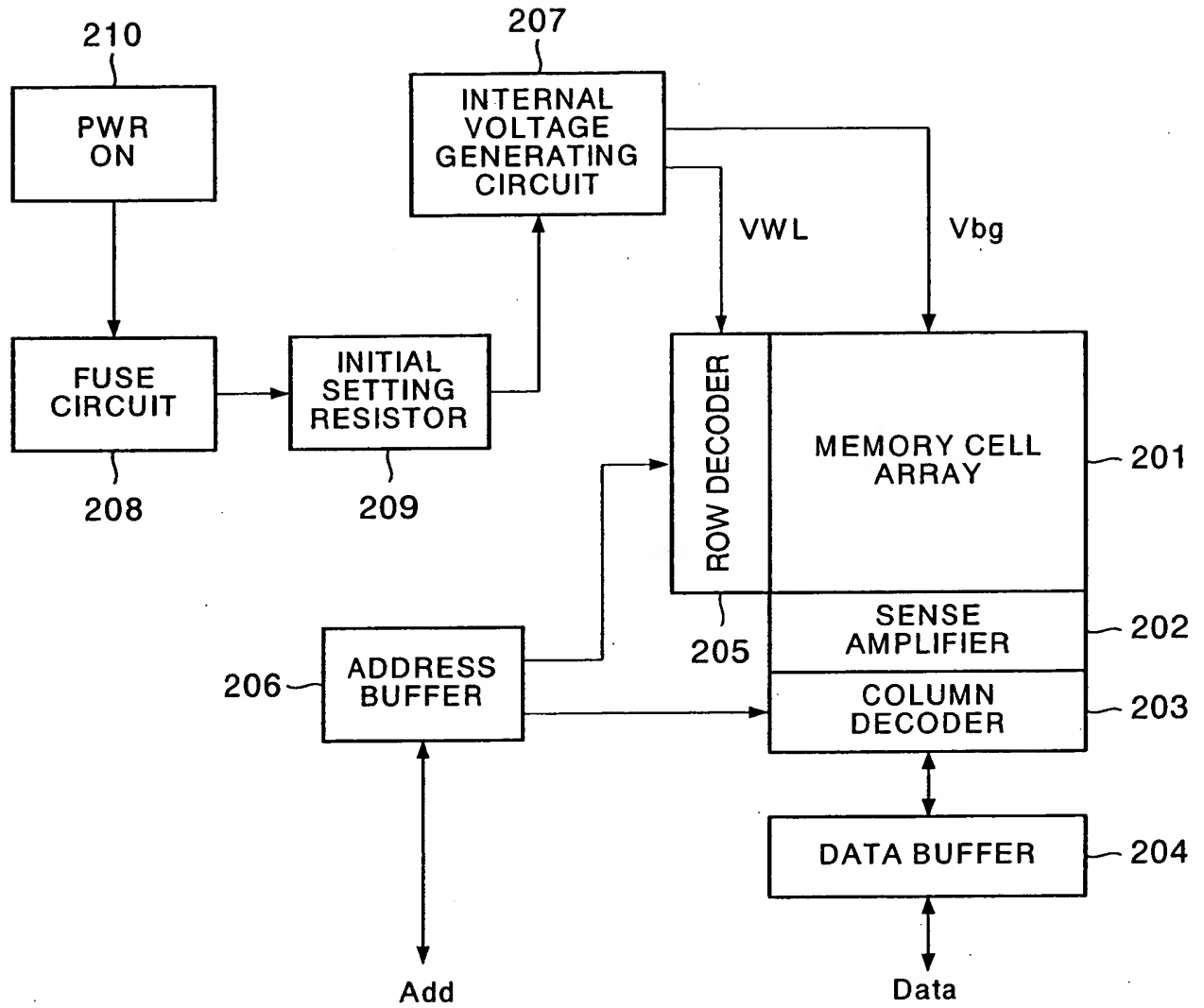


FIG. 32